

CLAIMS

WE CLAIM:

1. A method of configuring a motor controller with an external device,
2 comprising:
 providing the motor controller to include solid state switches for controlling
4 application of power to the motor, and a control circuit for controlling operation of the solid state
switches, the control circuit comprising a programmed processor for commanding operation of
6 the solid state switches, and a memory connected to the programmed processor for storing
parameters relating to operation of the solid state switches;
8 providing the external device to include a memory for storing parameters relating
to operation of the solid state switches;
10 establishing communications between the programmed processor and the external
device; and
12 transferring a configuration database file between the controller memory and the
external device memory, the configuration database file comprising a plurality of the stored
14 parameters relating to operation of the solid state switches.
2. The method of configuring a motor controller with an external device of
2 claim 1 further comprising entering parameters relating to operation of the solid state switches

into the external device memory to define the configuration database file to be transferred to the
4 controller memory.

3. The method of configuring a motor controller with an external device of
2 claim 1 wherein transferring a configuration database file comprises downloading the
configuration database file from the external device memory to the controller memory.

4. The method of configuring a motor controller with an external device of
2 claim 1 wherein transferring a configuration database file comprises uploading the configuration
database file from the controller memory to the external device memory.

5. The method of configuring a motor controller with an external device of
2 claim 4 further comprising subsequently downloading the uploaded configuration database file
from the external device memory to the controller memory.

6. The method of configuring a motor controller with an external device of
2 claim 4 further comprising printing a listing of the uploaded configuration database file.

7. The method of configuring a motor controller with an external device of
2 claim 1 further comprising storing a plurality of pre-configured database files in the external
device memory.

8. The method of configuring a motor controller with an external device of
2 claim 7 wherein transferring a configuration database file comprises downloading a select one of
the pre-configured database files from the external device memory to the controller memory.

9. The method of configuring a motor controller with an external device of
2 claim 1 wherein establishing communications between the programmed processor and the
external device comprises providing an infrared communication path between the programmed
4 processor and the external device.

10. The method of configuring a motor controller with an external device of
2 claim 1 wherein establishing communications between the programmed processor and the
external device comprises providing a wired communication path between the programmed
4 processor and the external device.

11. An externally configurable motor controller system, comprising:

2 a motor controller including solid state switches for controlling application of
power to a motor, and a control circuit for controlling operation of the solid state switches, the
4 control circuit comprising a programmed processor for commanding operation of the solid state
switches, and a memory connected to the programmed processor storing parameters relating to
6 operation of the solid state switches, and an interface circuit operatively connected to the
programmed processor;

8 an external configuration device including a memory for storing parameters
relating to operation of the solid state switches and an interface for communication with the
10 motor controller; and

means operatively associated with the programmed processor and the external
12 configuration device for transferring a configuration database file between the controller memory
and the external device memory, the configuration database file comprising a plurality of the
14 stored parameters relating to operation of the solid state switches.

12. The externally configurable motor controller system of claim 11 wherein
2 the parameters stored in the external device memory define the configuration database file to be
transferred to the controller memory.

13. The externally configurable motor controller system of claim 11 wherein
2 the transferring means comprises means for downloading the configuration database file from the
external device memory to the controller memory.

14. The externally configurable motor controller system of claim 11 wherein
2 the transferring means comprises means for uploading the configuration database file from the
controller memory to the external device memory.

15. The externally configurable motor controller system of claim 14 wherein
2 the transferring means further comprises means for subsequently downloading the uploaded
configuration database file from the external device memory to the controller memory.

16. The externally configurable motor controller system of claim 14 further
2 comprising a printer operatively associated with the external device for printing a listing of the
uploaded configuration database file.

17. The externally configurable motor controller system of claim 11 wherein
2 the external device memory stores a plurality of pre-configured database files.

18. The externally configurable motor controller system of claim 17 wherein
2 the transferring means comprises downloading a select one of the pre-configured database files
from the external device memory to the controller memory.

19. The externally configurable motor controller system of claim 11 further
2 comprising an infrared communication path between the programmed processor and the external
device.

20. The externally configurable motor controller system of claim 11 further
2 comprising a wired communication path between the programmed processor and the external
device.

21. An externally configurable soft starter system, comprising:

2 a motor controller including solid state switches for controlling application of
power to a motor, and a control circuit for controlling operation of the solid state switches, the
4 control circuit comprising a programmed processor for commanding operation of the solid state
switches, and a memory connected to the programmed processor storing parameters relating to
6 operation of the solid state switches, and an interface circuit operatively connected to the
programmed processor;

8 an external configuration device including a memory for storing parameters
relating to operation of the solid state switches and an interface for communication with the
10 motor controller; and

a configuration program operatively implemented in the programmed processor
12 and the external configuration device for transferring a configuration database file between the
controller memory and the external device memory, the configuration database file comprising a
14 plurality of the stored parameters relating to operation of the solid state switches.

22. The externally configurable soft starter system of claim 21 wherein the
2 parameters stored in the external device memory define the configuration database file to be
transferred to the controller memory.

23. The externally configurable soft starter system of claim 21 wherein the
2 configuration program is operable to download the configuration database file from the external
device memory to the controller memory.

24. The externally configurable soft starter system of claim 21 wherein the
2 configuration program is operable to upload the configuration database file from the controller
memory to the external device memory.

25. The externally configurable soft starter system of claim 24 wherein the
2 configuration program is operable to subsequently download the uploaded configuration database
file from the external device memory to the controller memory.

26. The externally configurable soft starter system of claim 21 wherein the
2 external device memory stores a plurality of pre-configured database files.

27. The externally configurable soft starter system of claim 26 wherein the
2 configuration program is operable to download a select one of the pre-configured database files
from the external device memory to the controller memory.